

Title (en)  
Computer-implemented method for creating a virtual 3D model of a real three-dimensional real object and product formed on this basis

Title (de)  
Computerimplementiertes Verfahren zum Erzeugen eines virtuellen 3D-Modells eines realen dreidimensionalen realen Objekts sowie auf dieser Grundlage geformtes Produkt

Title (fr)  
Procédé implémenté par ordinateur destiné à générer un modèle en 3D virtuel d'un objet réel tridimensionnel ainsi que le produit formé sur cette base

Publication  
**EP 2584534 A3 20160302 (DE)**

Application  
**EP 12189021 A 20121018**

Priority  
DE 102011116386 A 20111020

Abstract (en)  
[origin: EP2584534A2] The method involves generating several layered two-dimensional scans in a pixel format by scanner, while identifying two-dimensional scans structures. The two-dimensional scans of pixel format are converted in vector format. The vectors are extended along the respective edges of the labeled structures. A grid is placed in respective edges of laminated vectorized two-dimensional scans, to connect layered two-dimensional scans in vertical direction. The grid is converted to voxel format, to create virtual solid with edges of selected structure as three-dimensional virtual model. An independent claim is included for medical, therapeutic or cosmetic product.

IPC 8 full level  
**G06T 7/00** (2006.01); **G06T 17/10** (2006.01); **G06T 17/20** (2006.01); **G06T 19/20** (2011.01)

CPC (source: EP)  
**G06T 17/10** (2013.01); **G06T 17/20** (2013.01); **G06T 19/20** (2013.01); **G06T 2200/08** (2013.01); **G06T 2210/41** (2013.01); **G06T 2219/2021** (2013.01)

Citation (search report)  
• [Y] US 2001033283 A1 20011025 - LIANG CHENG-CHUNG [US], et al  
• [Y] BAJAJ C L ET AL: "Arbitrary Topology Shape Reconstruction from Planar Cross Sections", CVGIP GRAPHICAL MODELS AND IMAGE PROCESSING, ACADEMIC PRESS, DULUTH, MA, US, vol. 58, no. 6, 1 November 1996 (1996-11-01), pages 524 - 543, XP004418964, ISSN: 1077-3169, DOI: 10.1006/GMIP.1996.0044  
• [X] D MA ET AL: "Volume Modeling for Rapid Prototyping", 1999, pages 77 - 84, XP055242920, Retrieved from the Internet <URL:http://sffsymposium.engr.utexas.edu/Manuscripts/1999/1999-009-Ma.pdf> [retrieved on 20160119]  
• [Y] MEYERS D ET AL: "SURFACES FROM CONTOURS", ACM TRANSACTIONS ON GRAPHICS (TOG), ACM, US, vol. 11, no. 3, 1 July 1992 (1992-07-01), pages 228 - 258, XP000306275, ISSN: 0730-0301, DOI: 10.1145/130881.131213

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CN109801370A; CN107038757A; EP3546002A1; EP3020537A1; CN105608728A; US10118345B2; US10409235B2; US9993977B2; US10011078B2; US10173366B2; US10183445B2

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

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DOCDB simple family (application)  
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